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Date: 2-21-06  
Himanshu S. Amin**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re patent application of:

Applicant(s): Stephen M. Sikorski

Examiner: Michelle K. Lay

Serial No: 10/748,992

Art Unit: 2672

Filing Date: December 29, 2003

Title: INVERTED TERMINAL PRESENTATION SCANNER AND HOLDER

Mail Stop Appeal Brief – Patents  
Commissioner for Patents  
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Alexandria, VA 22313-1450

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**APPEAL BRIEF**

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Dear Sir:

Appellant's representative submits this brief in connection with an appeal of the above-identified patent application. If any additional fees are due and/or are not covered by the credit card, the Commissioner is authorized to charge such fees to Deposit Account No. 50-1063 [SYMBP165USA].

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**I. Real Party in Interest (37 C.F.R. §41.37(c)(1)(i))**

The real party in interest in the present appeal is Symbol Technologies, Inc., the assignee of the subject application.

**II. Related Appeals and Interferences (37 C.F.R. §41.37(c)(1)(ii))**

Appellant, appellant's legal representative, and/or the assignee of the subject application are not aware of any appeals or interferences which may be related to, will directly affect, or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**III. Status of Claims (37 C.F.R. §41.37(c)(1)(iii))**

Claims 1-17 stand rejected by the Examiner. The rejection of claims 1-17 is being appealed.

**IV. Status of Amendments (37 C.F.R. §41.37(c)(1)(iv))**

The proposed amendment of claim 2, to supply antecedent basis to a claim element, has been entered after the Final Office Action.

**V. Summary of Claimed Subject Matter (37 C.F.R. §41.37(c)(1)(v))****A. Independent Claim 1**

Independent claim 1 recites a mobile device comprising a display component; and an orientation component that *automatically* orients display objects rendered by the display *based at least in part upon a user perspective*. (See, e.g., Fig. 1; page 4, line 10; page 7, line 27 through page 8, line 7; Fig. 7, page 19, lines 4-21).

**B. Independent Claim 13**

Independent claim 13 recites a method that facilitates displaying objects comprising displaying graphical objects on a portable bar code scanning device, automatically orientating rendered graphical objects based at least in part upon a physical orientation of a user with respect to the device, and changing object display parameters to

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provide at least one of an optimized object display and an optimized viewing position. (See e.g., Fig. 3, page 15, line 20 through page 16, line 29).

**C. Independent Claim 15**

Independent claim 15 recites a mobile scanning terminal method comprising displaying graphical objects, automatically orientating the graphical objects based at least upon a user perspective, and capturing an image for further analysis. (See e.g., Fig. 3, page 15, line 20 through page 16, line 29).

**D. Independent Claim 16**

Independent claim 16 recites a mobile scanning terminal system comprising means for displaying graphical objects, and means for determining user desired orientation for rendering the objects. (See e.g., Fig. 2; page 11, line 30 through page 12, line 19).

**E. Independent Claim 17**

Independent claim 17 recites a mobile scanning terminal system comprising a data capture component that captures data, a display that displays data to a user, an artificial intelligence component that determines an optimal screen orientation for the display based at least upon a user's position, and a holder that holds the data capture component at a predetermined position to allow for continuous and hands-free capture of data. (See e.g., Fig. 9; page 20, line 24 through page 21, line 22).

**VI. Grounds of Rejection to be Reviewed (37 C.F.R. §41.37(c)(1)(vi))**

**A.** Whether claims 1, 2, 5-7 and 16 are unpatentable under 35 U.S.C. §102(e) as being anticipated by Manchester (US Publication No. 2004/0201595 A1).

**B.** Whether claims 3, 4, 8-12 and 15 are unpatentable under 35 U.S.C. §103(a) as being obvious over Manchester (US Publication No. 2004/0201595 A1) in view of Browning (US 6,707,581 B1).

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C. Whether claims 13 and 14 are unpatentable under 35 U.S.C. §103(a) as being obvious over Browning (US 6,707,581 B1) in view of Manchester (US Publication No. 2004/0201595 A1).

D. Whether claim 17 is unpatentable under 35 U.S.C. §103(a) as being obvious over Ogawa (US 6,937,281 B1) in view of Manchester (US Publication No. 2004/0201595 A1).

## VII. Argument (37 C.F.R. §41.37(c)(1)(vii))

### A. Rejection of Claims 1, 2, 5-7 and 16 Under 35 U.S.C. §102(e)

Claims 1, 2, 5-7 and 16 stand rejected under 35 U.S.C. §102(e) as being anticipated by Manchester (US Publication No. 2004/0201595 A1). Reversal of this rejection is respectfully requested for at least the following reasons. Manchester fails to teach or suggest each and every element of the subject claims.

A single prior art reference anticipates a patent claim only if it *expressly or inherently describes each and every limitation* set forth in the patent claim. *Trintec Industries, Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 63 USPQ2d 1597 (Fed. Cir. 2002); *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). *The identical invention must be shown in as complete detail as is contained in the ... claim.* *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Appellant's claimed innovation relates to systems and methodologies that facilitate data capture and/or display of data to users. A mobile scanning terminal device provides inverting and/or rotating the display based upon a user's perspective. Suitable orientation for the display can be determined *via* employing various sensors and artificial intelligence techniques to infer a user's optical viewing position. Accordingly, a display can be automatically configured to optimize its orientation for viewing by the user. The system can additionally provide for a holder that enables a user to employ the terminal

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device hands free for capture of data. To that end, independent claim 1 recites *a mobile device having a display component and an orientation component that automatically orients display objects rendered by the display based at least in part upon a user perspective*. Further independent claim 16 recites system features in accordance with the subject innovation. It is apparent that, in the claimed innovation, a ***display component*** cooperates with ***an orientation component*** that automatically orients display objects rendered by the display ***based at least in part upon a user perspective***. Manchester simply does not teach or suggest this exemplary aspect of the claimed innovation.

Manchester relates to a self-orienting display that senses characteristics of an object to be displayed and automatically rotates the display in accordance with those characteristics. In the Final Office Action (dated September 20, 2005), the Examiner states that Manchester discloses the above-noted claimed aspect of the innovation, citing the Abstract and paragraphs [0019] and [0025]. However, the Abstract of Manchester discloses the following:

***A self-orienting display senses the characteristics of an object and automatically rotates and reformats a display image in accordance with those characteristics.... As the display device is rotated, the display image is automatically oriented to either a landscape orientation or a portrait orientation.***

Also, paragraph [0019] of Manchester discloses:

***A self-orienting display in accordance with the present invention senses the orientation of an object and automatically orients a display image in accordance with the orientation of that object.... An exemplary embodiment of this self-orienting display comprises a monitor that automatically orients the display image provided by the monitor to either a landscape orientation or a portrait orientation in response to the orientation of the monitor.***

Further, paragraph [0025] of Manchester discloses:

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In one embodiment of the present invention, *the display image 14 is oriented with respect to the orientation of the display device 12....* Thus, if a viewer prefers landscape mode, she can rotate the display device 12 to achieve the orientation shown in FIG. 1. If the viewer prefers portrait mode, she can rotate the display device 12 to achieve the orientation shown in FIG. 2B. Note that even though the appearance of the display image 14, relative to a viewer, remains approximately constant, *the display image 14 is actually oriented (rotated and formatted) in response to the orientation of the display device 12.*

Clearly, these passages simply disclose that the image of Manchester's device is oriented with respect to *the orientation of the object* and also *the orientation of the display device*, rather than *the user's perspective*, as is recited in the subject claims. Contrary to the Examiner's assertion, nothing is disclosed or suggested in Manchester to indicate an *orientation component that automatically orients display objects rendered by the display based at least in part upon a user perspective*, in accordance with the claimed innovation. The previously cited instances make clear that the orientation is varied from between a "landscape" mode and a "portrait" mode. But in the Advisory Action dated December 13, 2005, the Examiner states that, *concerning claims 1, 2, 5-7, and 16, referring to Fig. 3, the display device (12) shows the oriented display image (14) is rotated to achieve an arbitrary orientation [0027]. Therefore, Manchester does teach orienting the display image at any desired angle and/or orientation.* However, the newly-cited paragraph [0027] states:

FIG. 3 is an illustration of rotated self-orienting display device 12 showing the oriented display image 14 *rotated to achieve an arbitrary orientation.* The display image 14 of FIG. 3 is automatically rotated such that the relative orientation between a viewer is approximately constant, *regardless of the amount by which the display device 12 is rotated.*

Notwithstanding, it is readily apparent that *rotating an oriented display image to an arbitrary orientation* is clearly *not* equivalent to an *orientation component that automatically orients display objects rendered by the display based at least in part upon*

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*a user perspective*, in accordance with the claimed innovation. In this passage and throughout the reference, Manchester presupposes that the user's orientation is constant and upright. Any changes in Manchester's display orientation result from movement of *the object or the display device*. There is simply nothing disclosed or suggested in Manchester that can accommodate any variations in the *user's orientation*, e.g. if the user is oriented in any way other than vertical. Thus, Manchester does not disclose or suggest each and every aspect of the claimed innovation, as is required to show anticipation (MPEP 706.02). In view of at least the foregoing, it is therefore readily apparent that the rejection of independent claims 1 and 16 (and claims which respectively depend there from) should be reversed.

**B. Rejection of Claims 3, 4, 8-12 and 15 Under 35 U.S.C. §103(a)**

Claims 3, 4, 8-12 and 15 stand rejected under 35 U.S.C. §103(a) as being obvious over Manchester (US Publication No. 2004/0201595 A1) in view of Browning (US 6,707,581 B1). Applicant's representative respectfully submits that this rejection should be reversed for at least the following reasons. Browning fails to make up for the aforementioned deficiencies of Manchester with respect to independent claims 1 and 15.

To reject claims in an application under §103, an examiner must establish a *prima facie* case of obviousness. A *prima facie* case of obviousness is established by a showing of three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. *Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.* See MPEP §706.02(j). (Emphasis added). The teaching or suggestion to make the claimed combination and the reasonable expectation of success *must both be found in the prior art* and not based on applicant's disclosure. See *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (Emphasis added).

Browning fails to make up for the aforementioned deficiencies of Manchester. Specifically, Browning does not teach or suggest *an orientation component that*

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*automatically orients display objects rendered by the display based at least in part upon a user perspective* as recited in independent claim 1 (and similarly in independent claim 15). Rather, Browning relates to a device that scans a line of information in the form of Internet URL's, Internet protocol addresses, Internet email addresses, FTP sites, bar codes, etc., and utilizes onboard information retrieval software that establishes a connection to the Internet to retrieve associated information. (See Abstract). Browning, however, does not relate to altering the orientation of displayed objects, much less orienting display objects rendered by the display based at least in part upon a user perspective. In the "Response to Arguments" in the Final Action, the Examiner argues that the PDA with scanner of Browning would meet the requirement of the claimed "means to sense an object" in order to display the object associated with the barcode. This clearly teaches away from the subject innovation and has nothing whatsoever to do with the innovation as presently claimed. As such, Manchester and Browning, either alone or in combination, do not disclose each and every aspect as claimed. Accordingly, the rejection of claims 3, 4, 8-12 and 15 should be reversed.

**C. Rejection of Claims 13 and 14 Under 35 U.S.C. §103(a)**

Claims 13 and 14 stand rejected under 35 U.S.C. §103(a) as being obvious over Browning (US 6,707,581 B1) in view of Manchester (US Publication No. 2004/0201595 A1). It is respectfully submitted that the rejection should be reversed for at least the following reasons. Browning and Manchester, either alone or in combination, do not teach or suggest each and every element of the subject claims.

As discussed *supra*, the subject innovation relates to relates to a system and methodology for data capture and display to users. In one aspect of the innovation as claimed, an artificial intelligence component is utilized to provide optimum viewing position of images and/or text within display component. To that end, independent claim 13 recites *automatically orientating rendered graphical objects based at least in part upon a physical orientation of a user with respect to the device and changing object display parameters to provide at least one of an optimized object display and an optimized viewing position*. Browning and Manchester fail to teach or suggest such claim elements. In the "Response to Arguments," the Examiner again argues that

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Browning combined with the orienting arrangement of Manchester would result in a self-orienting display that would take into account the user's perspective. But as already shown above, Manchester *only* discloses orienting the display between landscape and portrait views *based on the orientation of the monitor or the object*. Thus, even if Browning and Manchester could be combined as proposed by the Examiner, the combination would still fail to teach or suggest *automatically orientating rendered graphical objects based at least in part upon a physical orientation of a user with respect to the device*. Further, the cited references fail to teach or suggest *changing object display parameters to provide at least one of an optimized object display and an optimized viewing position*, as recited in independent claim 13. It has been shown above that Manchester relates to changing the orientation of a displayed object *based on properties of the object*. Manchester, however, is silent with regard to changing object display parameters to provide at least one of an optimized object display and an optimized viewing position. Browning fails to teach or suggest such claim features and thus fails to cure the deficiencies of Manchester.

In the Advisory Action of December 13, 2005, the Examiner simply once again cites the *object and display device orientation* of the Manchester system, and persists in equating these with the subject claim requirement of *automatically orientating rendered graphical objects based at least in part upon a physical orientation of a user with respect to the device*. It would appear that the Examiner either fails to understand this important distinction or is dismissive of the same. In any case, in view of at least the foregoing, it is readily apparent that Browning and Manchester, either alone or in combination, do not teach or suggest the subject innovation as recited in independent claim 13 (and claim 14 which depends therefrom). Accordingly, this rejection should be reversed.

**D. Rejection of Claim 17 Under 35 U.S.C. §103(a)**

Claim 17 stands rejected under 35 U.S.C. §103(a) as being obvious over Ogawa (US 6,937,281 B1) in view of Manchester (US Publication No. 2004/0201595 A1). Reversal of this rejection is respectfully requested for at least the following reasons. Ogawa and Manchester, either individually or in combination, do not teach or suggest all

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the limitations recited in the subject claims.

Appellant's subject innovation of claim 17 relates to *a mobile scanning terminal system having a data capture component that captures data, a display that displays data to a user, an artificial intelligence component that determines an optimal screen orientation for the display based at least upon a user's position, a holder that holds the data capture component at a predetermined position to allow for continuous and hands-free capture of data.* Ogawa shows a digital camera which the Examiner reads onto the subject data capture component. The camera of Ogawa includes a timer that the Examiner indicates can be used for "hands-free capture of data," as recited in the claim. It should be plain that a simple self-timer as shown in Ogawa is *not equivalent* to the claimed **holder** that holds the data capture component. Further, as repeatedly pointed out to the Examiner, the setting of a self-timer on a camera allows for a single data collection event, that is, the taking of a picture. The mere setting of a self timer clearly fails to provide both *continuous* and *hands-free* capture of data, as recited in independent claim 17. In response to this argument, in the Advisory Action of December 13, 2005, the Examiner simply states that, "*by setting the image pickup apparatus of Ogawa for self-timing for continuous shooting, the user is not required to manually operate the image pickup apparatus for data capture.*" But even if the Examiner's argument were applicable, there is still no citation from this reference or any other that discloses the claimed **holder**, shown above to be missing from Ogawa. Additionally, it should be noted that Ogawa is silent as to an *artificial intelligence component that determines an optimal screen orientation for the display based at least upon a user's position.* As such, Ogawa does not disclose each and every element of the subject claims.

Manchester fails to make up for the aforementioned deficiencies of Ogawa. Manchester is silent with regard to data collection, much less *continuous and hands-free capture of data.* Additionally, from the discussion presented above, Manchester fails to teach or suggest an artificial intelligence component that determines an optimal screen orientation for the display based at least upon a user's position. As such, Manchester fails to make up for the deficiencies of Ogawa with regard to the subject innovation.

In view of at least the foregoing, it is readily apparent that Ogawa and Manchester, either alone or in combination, do not teach or suggest the subject

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innovation as recited in independent claim 17. Accordingly, this rejection should be reversed.

**E. Conclusion**

For at least the above reasons, the claims currently under consideration are believed to be patentable over the cited references. Accordingly, it is respectfully requested that the rejections of claims 1-17 be reversed.

If any additional fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063.

Respectfully submitted,  
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**VIII. Claims Appendix (37 C.F.R. §41.37(c)(1)(viii))**

1. A mobile device, comprising:  
a display component; and  
an orientation component that automatically orients display objects rendered by the display based at least in part upon a user perspective.
2. The mobile device of claim 1, an artificial intelligence component infers a desired orientation for the display based at least in part upon a user context or state.
3. The mobile device of claim 1, further comprising a data store that stores product information.
4. The mobile device of claim 1, further comprising a bar code scanner.
5. The mobile device of claim 1, the orientation component further comprising a sensor component that determines a respective location of a user.
6. The mobile device of claim 5, the sensor component comprising a gyroscope.
7. The mobile device of claim 1, further comprising a wireless component.
8. The mobile device of claim 1, further comprising an image capture component.
9. The mobile device of claim 8, further comprising an analysis component that analyzes image(s) captured.
10. The mobile device of claim 9, further comprising an artificial intelligence component that infers properties of the image.

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11. The mobile device of claim 10, the analysis component identifies a product associated with the image.
12. The mobile device of claim 11, the analysis component identifies a product location associated with the image.
13. A method that facilitates displaying objects, comprising:  
displaying graphical objects on a portable bar code scanning device;  
automatically orientating rendered graphical objects based at least in part upon a physical orientation of a user with respect to the device; and  
changing object display parameters to provide at least one of an optimized object display and an optimized viewing position.
14. The method of claim 13, further comprising inferring user desired orientation of the display objects.
15. A mobile scanning terminal method, comprising:  
displaying graphical objects ;  
automatically orientating the graphical objects based at least upon a user perspective; and  
capturing an image for further analysis.
16. A mobile scanning terminal system, comprising:  
means for displaying graphical objects; and  
means for determining user desired orientation for rendering the objects.
17. A mobile scanning terminal system, comprising:  
a data capture component that captures data;  
a display that displays data to a user;  
an artificial intelligence component that determines an optimal screen orientation for the display based at least upon a user's position; and

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a holder that holds the data capture component at a predetermined position to allow for continuous and hands-free capture of data.

**IX. Evidence Appendix (37 C.F.R. §41.37(c)(1)(ix))**

None.

**X. Related Proceedings Appendix (37 C.F.R. §41.37(c)(1)(x))**

None.